



Figure 28 Comparison between experimental (symbols) flow reactor oxidation data for $\phi = 1.24$ as investigated by Norton and Dryer [6] and the numerical calculations (lines) using the detailed chemical kinetic model. The numerical results were time “shifted” by ca. -23 msec. Experimental conditions: 5.81% $\text{C}_2\text{H}_5\text{OH}$, 1.407% O_2 , and 98.012% Nitrogen, Reynolds Number = 4900, $P = 1\text{atm}$, and $T_{\text{in}} = 1100\text{ K}$. Numerical simulations shown for $\text{C}_2\text{H}_5\text{OH}$, O_2 , CO , CO_2 , H_2 , and H_2O .